

Appl. No. 10/064,983
Response dated Apr. 25, 2003
Response to Office Action of Jan. 29, 2003

REMARKS/ARGUMENTS

Status of Application

Claims 1-20 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over United States Patent 6,373,187 B1 (Nagayama) in view of United States Patent 6,111,356 (Roitman). By way of this response, Applicants have added new claims 21-34.

Rejections under 35 USC § 103

Claims 1-20 stand rejected under 35 USC § 103 as being anticipated by United States Patent 6,373,180 (Nagayama) in view of United States Patent 6,111,356 (Roitman). In rejecting the claims, the Examiner admits that Nagayama fails to teach "coating the substrate comprising an organic functional material dissolved in a solvent, the pillar being inert to the solvent; and removing the solvent to form an organic functional layer." See Office Action, page 3, first full paragraph. To compensate for the deficiencies of Nagayama, the Examiner relies on Roitman. Applicants respectfully disagree.

The present claims 1 and 12, which have been amended to more clearly recite the invention, recite patterning a device layer to form pillars which extend outside an active region in which pixels are formed to prevent electrical shorting. The pillars are used to pattern a conductive layer. The use of pillars on a substrate which extend outside an active region to prevent electrical shorting is nowhere taught or suggested by the cited art, alone or in combination.

Even if, as the Examiner suggested to combine the teachings in Nagayama and Roitman, this still fails to teach the present claimed invention. At best, the combination of Nagayama and Roitman teaches only the use of multiple pillars to break the continuity of fine contaminants to prevent electrical short.

Furthermore, claims 1 and 12 recite pillars which are inert to the solvents in which the organic functional material is dissolved. Although Roitman teaches the use of pillars with organic materials dissolved in a solvent, the pillars are formed after the organic layers are formed on the substrate. Since the solvent is evaporated prior to formation of the pillars, the pillars need not be inert to the solvents. In fact, the anneal of the resist layer

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which is used to form the pillars is part of the development process, not to make it inert to the solvents of the polymer layers.

Applicants therefore submit that the cited art, alone or in combination, nowhere teaches or suggests the use of pillars which are inert to the solvent in which the organic function layer is dissolved or pillars which extend beyond the active region to prevent shorting. As such, claims 1 and 12 are patentable over the cited art, alone or in combination. As claims 2-11 and 13-20 either are directly or indirectly dependent on claim 1 or claim 12 and newly added claims all recite either an OLED device or a method of forming an OLED device which includes pillars that extend outside an active region to prevent electrical shorting, Applicants therefore submit that these claims are also patentable over the cited art, alone or in combination.

Conclusion

In view of the foregoing, Applicants believe that all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Should the Examiner believe that a telephone conference would expedite prosecution of this application, please telephone the undersigned attorney at his number set out below.

Dated: April 25, 2003

Respectfully submitted,



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